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Application No. : 10/698,871
Inventor(s) : Mannie Lee Clapp et al.
Filed : 10/31/2003
Art Unit : 1751
Examiner : John R. Hardee
Docket No. : 9084M
Confirmation No. : 2009
Customer No. : 27752
Title : Rinse-Off Personal Care Compositions Comprising Anionic
and/or Nonionic Perfume Polymeric Particles

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

This Brief is filed pursuant to the appeal from the decision communicated in the Office
Action mailed on December 29, 2006.

A Notice of Appeal is being submitted together with this brief.

REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company of Cincinnati, Ohio.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals, interferences, or judicial proceedings.

STATUS OF CLAIMS

Claims 1-5, 7-9 and 12-22 are pending in the present application

Claims 1-5, 7-9 and 12-22 are being appealed.

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A complete copy of the appealed claims is set forth in the Claims Appendix attached herein.

STATUS OF AMENDMENTS

Amendments to the claims were filed on March 6, 2006, June 30, 2006 and November 14, 2006. All of the amendments were entered.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to rinse-off personal care compositions that comprise a perfume polymeric particle, which is useful as a delivery system for a perfume raw material ("PRM"), methods for making such personal care compositions and methods of treating substrates, such as skin and/or hair with such personal care compositions (page 1, line 10-13). In one aspect, the present invention relates to a personal care composition that comprises a personal care adjunct ingredient (page 5, line 29-32), a water insoluble perfume polymeric particle (page 22, lines 20-23), and a cationic deposition polymer aggregated with the perfume polymeric particle (page 27, line 35 to page 30, line 19). The water insoluble perfume polymeric particle has an average particle size of from about 100 nm to about 39 μ m (page 21, lines 22-23). The water insoluble perfume polymeric particle comprises an anionic polymer and a perfume that comprises one or more perfume raw materials having one or more of the following characteristics; a) a number molecular weight of less than about 200; b) a boiling point of less than about 250°C; c) a ClogP of less than about 3; and d) a Kovats Index value of less than about 1700 (page 17-22; page 43, line 9-15); wherein the Response Factor (RF) of the perfume polymeric material is at least about 1.6 (page 43; line 25-16).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Are Claims 1-5, 7-9 and 12-22 obvious under 35 U.S.C 103 (a) over EP publication 925,776 (herein after referred to as "EP '776")?

ARGUMENTS

Claims 1-5, 7-9 and 12-22 are not obvious under 35 U.S.C 103 (a) over EP '776.

Claims 1-5, 7-9 and 12-22 have been rejected under 35 USC §103(a) as being unpatentable over EP '776. The Office Action states that the EP '776 differs from the claimed

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subject matter in that it does not disclose a polymer or a composition which reads on the claims with sufficient specificity to constitute anticipation. The Office Action states that EP '776 discloses polymers which can be complexed with perfume ingredients and formulated into laundry products. The Office Action states that EP '776 discloses suitable monomers including methacrylic acid, which read on the Applicant's elected species. The Office action states that cationic monomers can be added, and the EP '776 disclosure implies that a copolymer of such a cationic monomer with styrene or a homopolymer of the cationic monomer would be useful. The Office Action states that the EP '776 teaches that the perfume not be covalently bonded with the polymer. The Office Action admits that the Kovat's indexes, RF's and ClogP's in the claim are not disclosed, however, the office action states that reference discloses some of the perfume ingredients which are disclosed as suitable by the Applicant. The Office Action states that the polymers of EP '776 are cross-linked which implies water insolubility. The Office Action admits that no article size is disclosed, however, the EP '776 discloses grinding of the polymers, so modification particle size is obvious. The Office Action admits that using a cationic polymer in conjunction with an anionic polymer is not specifically disclosed. The Office Action states that it is *prima facie* obvious to combine two compositions each taught for the same purpose, to yield a third composition for that very purpose. The Office Action states that when ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results. The Office action concludes that a person of ordinary skill in the surfactant art would expect combination of these materials, absent unexpected results. The Office action further concludes that it would have been obvious at the time the invention was made to make such as composition, because his reference teaches all of the ingredients recited by the applicant are suitable for inclusion in a polymer which is formulated into a surfactant composition. The Office Action states that a person of ordinary skill in the surfactant art would expect the recited compositions to have properties similar to those compositions which are exemplified, absent a showing to the contrary.

The Appellants respectfully traverse the rejection.

The present invention relates to rinse-off personal care compositions that comprises a perfume polymeric particle, which is useful as a delivery system for a perfume raw material (hereinafter referred to as "PRM"), methods for making such personal care compositions and methods of treating substrates, such as skin and/or hair with such personal care compositions (page 1, line 10-13). The present invention relates to a personal care composition that comprises

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a personal care adjunct ingredient (page 5, line 29-32), a water insoluble perfume polymeric particle (page 22, lines 20-23), and a cationic deposition polymer aggregated with the perfume polymeric particle (page 27, line 35 to page 30, line 19). The water insoluble perfume polymeric particles in the delivery system comprise anionic polymers. The cationic deposition polymers comprised in the composition of the present invention facilitate deposition of the perfume polymeric particles. The cationic deposition polymer is not part of the perfume delivery system. The cationic deposition polymer, instead, interacts with perfume polymeric particle, an anionic polymer which carries PRMs, and helps deliver the PRMs more effectively to the consumer surface (e.g. fabric, hair, skin). Importantly, the perfume polymeric particles carry PRMs more effectively to the consumer surface because of the separate cationic deposition polymer within the composition.

EP '776 does not teach or suggest all of the claim limitations of Claims 1-5, 7-9 and 12-22 and, therefore, does not establish a *prima facie* case of obviousness. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03 citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 citing *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Specifically, claims 1-9 and 12-22 does not teach or suggest a personal care composition that comprises a cationic deposition polymer. EP '776 does not mention cationic deposition polymers and the benefits of using a cationic deposition polymer in compositions. Instead, EP '776 teaches a polymer at least partly imprinted with at least one organoleptic substance allows the slow release of odoriferous compounds.

There is no suggestion in EP '776 to use cationic deposition polymers in the composition for increased deposition. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so, *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006). Furthermore, the teaching or suggestion to make the claimed combination must be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). One of skill in the art would not be motivated to use cationic deposition polymers for increased deposition just because EP '776 uses perfume. One skilled in the art upon reading EP '776, would use a polymer imprinted with an organoleptic substance, such as a PRM, as described in EP '776 to deposit perfume due to the benefits of control and specificity in

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deposition by using an imprinted polymer as explained throughout the disclosure of EP '776. EP '776 does not teach or suggest that a cationic deposition polymer interacts with a polymer to help deliver the PRM's more effectively. Thus, it does not follow that one of skill in the art would be motivated to use a cationic deposition polymer just by reading the disclosure of EP '776. The motivation to use a cationic deposition can only be found in the Appellants disclosure using hindsight.

Further, EP '776 teaches away the use of a cationic deposition polymer to increase perfume deposition. A prior art reference may be considered as teaching away when "a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path taken from the Applicant," *In re Gurley*, 27 F. 3d 51, 31 USPQ2d 1130, 1131 (Fed Cir. 1994). In reading EP '776, one of ordinary skill in the art would be led in a divergent path from using a cationic deposition polymer for increasing perfume deposition. One skilled in the art upon reading EP '776, would use a polymer imprinted with an organoleptic substance, such as a PRM, as described in EP '776 to deposit perfume due to the benefits of control and specificity in deposition by using an imprinted polymer as explained throughout the disclosure of EP '776. EP '766 teaches a polymer imprinted with a PRM resulting in controlled release of those PRMs that were used to imprint the polymer. EP '776 teaches that synthesizing a polymer in the presence of the specific PRM allows the polymer to interact more strongly with particular PRMs, if the polymer is ever exposed to the PRMs again. Thus, polymers of EP '776 are reported to show specificity on deposition based on the PRM used in the synthesis or imprinting process, this specificity results in controlled release of those PRMs that were used to imprint the polymer. EP '776 does not mention cationic deposition polymers and the benefits of using a cationic deposition polymer in compositions. EP '776 does not teach or suggest that a cationic deposition polymer interacts with polymers to help deliver the PRMs more effectively. Thus, taken as a whole one of skill in the art would not be motivated to use a cationic deposition polymer by reading the disclosure of EP '776.

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SUMMARY

In view of all of the above, the Appellants respectfully submit that the claimed invention is unobvious. The Appellants respectfully request that the rejections of record be withdrawn.

Respectfully submitted,
THE PROCTER & GAMBLE COMPANY



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CLAIMS APPENDIX

Claim 1. (Rejected) A personal care composition comprising:

- a) a personal care adjunct ingredient; and
- b) a water insoluble perfume polymeric particle having an average particle size of from about 100 nm to about 39 μm ; said water insoluble perfume polymeric particle comprising:
 - i) a anionic polymer and
 - ii) a perfume comprising one or more perfume raw materials having one or more of the following characteristics;
 - a) a number molecular weight of less than about 200;
 - b) a boiling point of less than about 250°C;
 - c) a ClogP of less than about 3; and
 - d) a Kovats Index value of less than about 1700;

wherein a Response Factor (RF) of the perfume polymeric material is at least about 1.6;

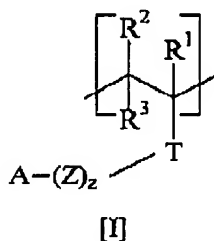
wherein said personal care composition further comprises a cationic deposition polymer aggregated with said perfume polymeric particle.

Claim 2. (Rejected) The personal care composition according to Claim 1, further comprising at least about 0.1 weight percent of one or more perfume raw material.

Claim 3. (Rejected) The personal care composition according to Claim 2, wherein at least 25 weight percent of said perfume raw materials have a Kovats Index value of less than about 1700.

Claim 4. (Rejected) The personal care composition according to Claim 1 wherein said perfume polymeric polymer further comprising a cationic monomer.

Claim 5. (Rejected) The personal care composition according to Claim 4 wherein said cationic monomer having the formula:



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wherein each of R^1 , R^2 and R^3 are independently selected from the group consisting of hydrogen, C_1 to C_6 alkyl, and mixtures thereof; T is selected from the group consisting of substituted or unsubstituted, saturated or unsaturated, linear or branched radicals selected from the group consisting of alkyl, cycloalkyl, aryl, alkaryl, aralkyl, heterocyclic ring, silyl, nitro, halo, cyano, sulfonato, alkoxy, keto, ester, ether, carbonyl, amido, amino, glycidyl, carbanato, carbamate, carboxylic, and carboalkoxy radicals and mixtures thereof; Z is selected from the group consisting of: $-(CH_2)-$, $(CH_2-CH=CH)-$, $-(CH_2-CHOH)-$, $(CH_2-CHNR^4)-$, $-(CH_2-CHR^5-O)-$ and mixtures thereof; z is an integer selected from about 0 to about 12; A is selected from the group consisting of NR^6R^7 , $NR^6R^7R^8$ and mixtures thereof;

wherein each of R^6 , R^7 and R^8 , when present, are independently selected from the group consisting of H, C_1 - C_8 linear, branched alkyl, alkyleneoxy having the formula:



and mixtures thereof;

wherein R^9 is selected from the group consisting of C_2 - C_4 linear, branched alkylene, carbonyl alkyl, and mixtures thereof; R^{10} is selected from the group consisting of hydrogen, C_1 - C_4 alkyl carbonyl alkyl, and mixtures thereof; y is from 1 to about 10.

Claim 6. (Canceled)

Claim 7. (Rejected) The personal care composition according to Claim 6 wherein the cationic deposition polymer is selected from cationic deposition polymers with flocculation time of less than 30 minutes as described in a Flocculation/Settling Test.

Claim 8. (Rejected) The personal care composition according to Claim 1 wherein perfume polymeric particles further comprises non-cationic monomer comprising a hydrophobic group selected from the group consisting of alkyls, cycloalkyls, aryls, alkaryl, aralkyls and mixtures thereof.

Claim 9. (Rejected) The personal care composition according to Claim 8 wherein the non-cationic monomer is selected from the group consisting of: methyl methacrylate, methyl acrylate, ethyl acrylate, n-propyl acrylate, iso-propylacrylate, n-propyl methacrylate, ethyl methacrylate, iso-propylmethacrylate, n-butyl acrylate, isobutyl acrylate, isobutyl methacrylate, n-butyl methacrylate, methacrylic acid, acrylic acid, acrylamide, methacrylamide, styrene, α -

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methyl styrene, benzyl acrylate, ethylhexylacrylate, hydroxyethylacrylate, hydroxypropylacrylate, hydroxyethylmethacrylate, hydroxypropylmethacrylate, hydroxybutylacrylate, hydroxybutylmethacrylate, PEG acrylate, acylamido-2-methylpropanesulfonic acid, vinylsulfonate, vinylpropionate, methylallylsulfonic acid, N-vinylformamide and N-vinylpyrrolidone and mixtures thereof.

Claim 10. (Canceled)

Claim 11. (Canceled)

Claim 12. (Rejected) The personal care composition according to Claim 1 wherein greater amounts of said perfume raw material is deposited onto a substrate and released from a substrate when the perfume raw material is associated with said polymer in the form of the perfume polymeric particle as measured by the Perfume Deposition & Delivery Test Protocol I.

Claim 13. (Rejected) The personal care composition of Claim 1, wherein one or more Low Kovats Index perfume raw materials, each having a Kovats Index value of from about 1000 to about 1400, and collectively provide a first Average Response Factor (ARF_{LKI}); and one or more High Kovats Index perfume raw materials, each having a Kovats Index value of greater than about 1700, and collectively provide a second Average Response Factor (ARF_{HKI});

wherein the perfume polymeric particle has a selectivity ratio of ARF_{LKI} / ARF_{HKI} of at least about 1.2.

Claim 14. (Rejected) The personal care composition of Claim 13 wherein Longevity Test I value provides an ARF_{LKI} greater than or equal to 1.6 times the value of ARF_{HKI} .

Claim 15. (Rejected) The personal care composition of Claim 13 wherein Longevity Test II value provides an ARF_{LKI} greater than or equal to 1.6 times the value of ARF_{HKI} .

Claim 16. (Rejected) A personal care composition comprising:

- a) a personal care adjunct ingredient; and
- b) a water insoluble perfume polymeric particle having an average particle size of from about 100 nm to about 39 μm ; said water insoluble perfume polymeric particle comprising:
 - i) a anionic polymer which exhibits a greater affinity for a perfume raw material having a Kovats Index value of less than about 1700, than other perfume raw

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materials as measured by the Perfume Deposition & Delivery Test Protocol I and/or the Polymeric Particle Affinity Test Protocol II

wherein the Longevity Test II value provides a ARF_{LKI} greater than or equal to 1.2 times the value of ARF_{HKI} ;

wherein said personal care composition further comprises a cationic deposition polymer aggregated with said perfume polymeric particle.

Claim 17. (Rejected) The personal care composition according to Claim 16 wherein said polymer exhibits at least a 1.6 times the affinity for a perfume raw material having a Kovats Index on DB-5 of between about 1000 to about 1500 than other perfume raw materials having a Kovats Index on DB-5 of greater than about 1700 as measured by the Perfume Deposition & Delivery Test Protocol I and the Polymeric Particle Affinity Test Protocol II.

Claim 18. (Rejected) A method for making a personal care composition, which exhibits enhanced fragrance intensity on skin and hair over time, comprising

- a. forming a preformed water insoluble polymeric particle having an average particle size of from about 100 nm to about 39 μ m; said water insoluble polymeric particle comprising a anionic polymer which exhibits a greater affinity for a perfume raw material having one or more of the following characteristics;
 - i) a number molecular weight of less than about 200;
 - ii) a boiling point of less than about 250°C;
 - iii) a ClogP of less than about 3;
 - iv) a Kovats Index value of less than about 1700, than other perfume raw materials as measured by the Perfume Deposition & Delivery Test Protocol I and/or the Polymeric Particle Affinity Test Protocol II;
- b. forming a perfume polymeric particle by mixing the preformed polymeric particles with a perfume comprising a perfume raw material having one or more of the following characteristics;
 - i) a molecular weight of less than about 200;
 - ii) a boiling point of less than about 250°C;
 - iii) a ClogP of less than about 3; and
 - iv) a Kovats Index value of less than about 1700 to; and
- c. contacting the perfume polymeric particle with a personal care adjunct ingredient to form the personal care composition ;wherein said personal care composition further

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comprises a cationic deposition polymer aggregated with said perfume polymeric particle.

Claim 19. (Rejected) A method for treating skin and hair of human and pet subject in need of treatment comprising:

- a) contacting the subject with a water insoluble perfume polymeric particle having an average particle size of from about 100 nm to about 39 μ m; said water insoluble perfume polymeric particle comprising:
 - i) a anionic polymer, wherein said anionic polymer further comprises and a perfume comprising one or more perfume raw materials having one or more of the following characteristics;
 - a) a number molecular weight of less than about 200;
 - b) a boiling point of less than about 250°C;
 - c) a ClogP of less than about 3;
 - d) a Kovats Index value of less than about 1700;wherein a cationic deposition polymer aggregated with said perfume polymeric particle; and
- b) rinsing off the personal care composition, such that the subject's skin and hair is treated.

Claim 20. (Rejected) A method for treating human and animal subject's hair and skin comprising:

- a) contacting the subject's skin and hair with a water insoluble perfume polymeric particle having an average particle size of from about 100 nm to about 39 μ m; said water insoluble perfume particle comprising:
 - i) an anionic polymer; and a perfume comprising one or more perfume raw materials having one or more of the following characteristics;
 - a) a number molecular weight of less than about 200;
 - b) a boiling point of less than about 250°C;
 - c) a ClogP of less than about 3;
 - d) a Kovats Index value of less than about 1700;wherein a cationic deposition polymer aggregated with said perfume polymeric particle; and
- a) leaving on the personal care composition, such that subject's skin and hair is treated.

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Claim 21. (Rejected) A personal care composition comprising two or more different water insoluble polymeric particles having an average particle size of from about 100 nm to about 39 μm and a perfume comprising;

a) a perfume raw material having a one or more of the following characteristics;

i) a number molecular weight of less than about 200;

ii) a boiling point of less than about 250°C;

iii) a ClogP of less than about 3;

iv) a Kovats Index value of less than about 1700; and

b) a personal care adjunct ingredient;

wherein the Longevity Test II value provides a ARF_{LKI} greater than or equal to 1.2 times the value of ARF_{HKI}

wherein said personal care composition further comprises a cationic deposition polymer aggregated with said perfume polymeric particle.

Claim 22. (Rejected) The personal care composition according to Claim 21, further comprising at least about .01 weight percent of said polymeric particle.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None